

Paper ID [PE505]

(Please fill this Paper ID in OMR Sheet)

M.Tech.

COMPUTER AIDED DESIGN AND MANUFACTURING (PE - 505)

Time : 03 Hours

Maximum Marks : 100

Instruction to Candidates:

- 1) Attempt any **Five** questions.
- 2) All questions carry equal marks.

- Q1)** (a) Describe the history and evolution of CAD/CAM.
(b) Explain the role of Computer Integrated Manufacturing in Modern Industries.
- Q2)** (a) Name and explain input and output devices used in CAD hardware.
(b) Describe the functions of a operating system.
- Q3)** (a) Explain how a mainframe computer is different from a DC.
(b) Describe the working of a GUI with some examples.
- Q4)** (a) Differentiate between wire frame modelling and surface modelling.
(b) Discuss the applications of CAD/CAM in any automobile industry.
- Q5)** Explain the following NC motion control systems:
(a) Point to point.
(b) Straight cut.
(c) Contouring.

- Q6)** Write a CNC program for drilling four holes equidistant from the corners in a rectangular plate of 10mm x 12mm. The hole diameter is 4mm and the thickness of the plate is 6mm.
- Q7)** 'CNC machines are encouraging unemployment.' Comment on the statement with reference to socio-technical environment.
- Q8)** Explain in detail the concept of tolerance and mechanical Assembly.